REMARKS

In the Office Action dated February 22, 2005, claims 1-35 were rejected under the judicially created doctrine of double patenting over claim 1 of U.S. Patent No. 6,804,678; and claims 1-4, 13-24, and 33-35 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,884,320 (Agrawal) in view of Urhan, "XJoin: Getting Fast Answers From Slow and Bursty Networks," CS-TR-3994 (Urhan).

Applicant acknowledges the indication that claims 5-12 and 25-32 would be allowable if rewritten in independent form.

OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION

Independent claim 1 of the present application was rejected as being obvious over claim 1 of U.S. Patent No. 6,804,678 (hereinafter "'678 patent"). Claim 1 of the '678 patent does not recite the following elements of claim 1 of the present application: hash joining the first and second tuples to produce result tuples as the first and second tuples are being redistributed to the plural nodes.

In indicating that claim 1 of the present application is obvious over claim 1 of the '678 patent, the Office Action committed several errors. The Office Action stated that an "ordinary skilled artisan would have been also motivated to modify claim 1 of the cited US patent by ... adding the use of hash joining." 2/22/2005 Office Action at 3. This is an unsupported conclusory statement. No factual basis, in the form of a reference or other evidence, has been cited to provide the requisite suggestion or motivation to modify claim 1 of the '678 patent to achieve claim 1 of the present application. As stated by the M.P.E.P., the analysis employed in an obviousness-type double patenting rejection parallels the guidelines for analysis of a 35 U.S.C. § 103 obviousness determination. M.P.E.P. § 804 (8th ed., Rev. 2), at 800-22. The M.P.E.P. further stated that the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966), are to be applied for establishing a background for determining obviousness under § 103 when making an obviousness-type double patenting analysis. *Id.* The Office Action has not provided the analysis required by the M.P.E.P. for the obviousness rejection of claim 1 of the present application over claim 1 of the '678 patent. Specifically, the Office Action has failed to cite to any reference that provided the requisite suggestion or

motivation to modify claim 1 of the '678 patent to achieve the invention of claim 1 of the present application.

A further error made in the Office Action is a reference to the specification of the '678 patent as disclosing "a non-blocking join algorithm that produces result tuples as the first and second tuples are being distributed to the plural nodes ('678 patent, col. 4, lines 35-50)." 2/22/2005 Office Action at 3. As specifically stated by the M.P.E.P., "the disclosure of the patent may *not* be used as prior art." M.P.E.P. § 804, at 800-22.

In view of the foregoing, it is respectfully submitted that the Office Action has failed to properly establish that claim 1 of the present application is obvious over claim 1 of the '678 patent.

Independent claims 13 and 23 of the present application are similarly not obvious over claim 1 of the '678 patent.

Withdrawal of the obviousness-type double patenting rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claim 1 was rejected as being obvious over the asserted combination of Agrawal and Urhan. The Office Action conceded that Agrawal does not disclose the last clause of claim 1, namely hash joining the first and second tuples to produce result tuples as the first and second tuples are being redistributed to the plural nodes. However, reliance was made on Urhan as teaching the missing element.

Applicant respectfully submits that a *prima facie* case of obviousness has not been established with respect to claim 1 over Agrawal and Urhan for at least the following reason: there existed no motivation or suggestion to combine the teachings of Agrawal and Urhan to achieve the claimed invention. M.P.E.P. § 2143 (8th ed., Rev. 2), at 2100-129.

Agrawal relates to performing spatial proximity joins, which are joins of two points that are in close proximity to each other based on a similarity distance. Agrawal, 1:23-44. However, as correctly noted in the Office Action, the spatial proximity join performed in Agrawal is not a hash join as recited in claim 1. In fact, Agrawal is specifically concerned with issues involving proximity joins, and in particular, proximity joins on high-dimensional points that cannot scale to a large number of dimensions. Agrawal, 2:16-19, 62-67. The stated object of Agrawal is "to provide a method for performing spatial proximity joins on high-dimensional points in parallel,

in a multiprocessor system." Agrawal, 3:2-4. There is absolutely no indication of any desirability to use techniques described in Agrawal for other types of joins.

It is well established law that "[t]he mere fact that the prior art could be so modified would not have made the modification **obvious** unless the prior art suggested the **desirability** of the modification." *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (emphasis added). As the Federal Circuit has stated, "virtually all [inventions] are combinations of old elements." *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453 (Fed. Cir. 1998). "Most, if not all, inventions are combinations and mostly of old elements." *Id.*

> Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'

Id.

In the present case, there was no suggestion anywhere in the cited references of applying the techniques of Agrawal to the hash join algorithm described in Urhan. As noted above, Agrawal is focused on a method for performing spatial proximity joins on high-dimensional points in parallel. On the other hand, although Urhan describes a hash join algorithm, there is no mention in Urhan of any desirability to redistribute tuples across plural nodes, as recited in claim 1. Thus, neither reference provides any suggestion or motivation to combine their respective teachings to achieve the claimed invention. In view of the foregoing, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 1.

Independent claims 13 and 23 are allowable for similar reasons.

Each of newly added dependent claims 36, 38, and 40 (which depend from claims 1, 13, and 23, respectively) are further allowable over the cited references in view of the additional recited subject matter pertaining to each of the nodes containing a first hash table to receive first tuples, and a second hash table to receive second tuples, where redistributed first tuples are stored in respective first hash tables, and redistributed second tuples are stored in respective second hash tables. There simply is no indication whatsoever in either Agrawal or Urhan of

plural nodes containing plural first and second hash tables, where such hash tables are used to store redistributed first and second tuples. Therefore, newly added dependent claims 36-41 are further allowable for the foregoing reasons.

In view of the foregoing, all claims are in condition for allowance, which action is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 14-0225 (9558).

Respectfully submitted,

Date: _May 23, 2005_

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